

REMARKS

Reconsideration and allowance of this application are respectfully requested.

Claims 1-5, 7-13, and 15-22 remain pending. By this communication, claim 1 is amended. Support for the amended subject matter can be found, for example, at page 1, lines 6-13 of the disclosure.

Applicant's claims were variously rejected over *Byers et al* (U.S. patent No. 6,693,247) and various other secondary references. Namely, in numbered paragraph 4 on page 2 of the Office Action, claims 1, 5-6, 13, and 14 are rejected under 35 U.S.C. §102(e) for alleged anticipation by *Byers et al* (U.S. Patent No. 6,693,247). Claims 2-6, 11-14, and 19-20 stand rejected under 35 U.S.C. §103(a) for alleged unpatentability over *Byers* and in further view of *Erickson* (U.S. Patent No. 4,623,859). Applicant respectfully traverses this rejection. Claims 7 and 15 stand rejected under 35 U.S.C. §103(a) for alleged unpatentability over *Erickson*. Applicant respectfully traverses this rejection. Claims 9-10, 17-18, and 21-22 stand rejected under 35 U.S.C. §103(a) for alleged unpatentability over *Erickson* and further in view of *Mody* (U.S. Patent No. 6,787,937). Applicant respectfully traverses this rejection.

In Figures 1-4, Applicant illustrates an exemplary apparatus actuating an high voltage power breaker. The apparatus includes a first lever 16 that is fixed to a drive shaft 18 of an electrical motor. The first lever 16 is fixed transversely with respect to the drive shaft 18 and acts on a second lever 12 via a connecting rod 14. The second lever 12 is fixed transversely to a rotating shaft 10 of the high voltage power breaker. An actuating level 42 is fixed transversely to the rotating shaft 10 and actuates a moving contact piece of a switching chamber 40 via an insulating rod 44.

High-voltage power breakers are used for voltage levels of 110kV and higher. They have to be able to switch off also short circuit currents, which can amount 100kA and higher. Due to the high mechanical forces which will rise with such high currents and to avoid problems of the dynamic stability of the grid, the switching off of the short circuit current has to be done within some few 10ms.

Applicant's claim 1 broadly encompasses the foregoing features and recites the following:

An apparatus for actuating high voltage power breaker having at least one moving contact piece, the at least one moving contact piece being driven via a rotating shaft, wherein an electric motor having a rotating drive shaft, which can be coupled to the rotating shaft for the switching device by means of a gear mechanism, is provided for the purpose of driving the rotating shaft to switch the high voltage power breaker on and off.

Byers fails to disclose every feature recited in Applicant's claims, and thus does not anticipate the same.

Byers discloses a load tap changer that is connected to a power source to control voltage supply from the power source to a load. See Abstract. The tap changer 100 includes a reversible induction motor 102 with an output device (sprocket 104) mounted to its output shaft and connected through a transmission device (transmission chain 105) to a drive sprocket 106. The drive sprocket 106 is attached to a drive shaft 107 that is perpendicular to the drive sprocket 106 plane of rotation. The drive shaft 107 engages a geneva gear 108. The geneva gear 108 is supported at its center of rotation 109 by a steel shaft 110 that is supported at its ends by support steel plate 112 on one side and an insulating dial switch panel 114 on the other. The geneva gear 108 is firmly attached to a bar 119 that extends perpendicular to the plane of rotation of the geneva gear 108. The bar 119 engages a drive slot 120 in the rotary arm, which includes a moveable insulating panel 122.

The moveable insulating panel 122 is supported by and rotates around the common steel shaft 110 that supports the geneva gear 108. The insulating panel 122 has the drive slot 120 at one end and at the other end supports two electrical moveable contacts 124, 126. Plural stationary contacts 118 are provided on the dial switch insulating panel 114. Each stationary contact 118 has an end 134 that electrically connects to a tap lead of an electronic control device 136 that receives power from the power source 130 to control an AC value to the load 132. A surface 138 of each stationary contact 118 is engaged by the moveable contacts 124, 126 and a pre-determined sequence. See column 6, line 48 through column 7, line 41.

Byers discloses that the load tap changer can be used in applications providing voltage ratings between 2400 volts and about 35000 volts for 60 Hz and 50Hz systems. The tap changer has a frequency up to some time in second between two tap steps. Most notably, the tap changer design does not appear to have the structural capacity to switch a high-voltage power breaker within 10 ms. As a result, the tap changer design has much different drive requirements than Applicants' claimed apparatus.

To properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. See Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Because *Byers* fails to disclose a device structure as recited in Applicants' claims, a *prima facie* case of anticipation has not been established. Withdrawal of this rejection is respectfully requested.

Because claims 2-5, 7-13, and 15-22 depend from claim 1, Applicants respectfully submit that they are distinguishable over the applied art for at least the

reasons stated above. With respect to claims 6 and 14, the Office alleges that the lever mechanism disclosed in *Erickson* could be combined with the structure of *Byers* to achieve Applicant's claimed results. Applicant disagrees and can find no nexus between these two references such that their respective teachings could be combined to achieve Applicant's claimed results.

Erickson is directed to a circuit breaker that includes a remote control assembly. The described structure does not appear to include any rotary gearing mechanisms but rather includes plural levers that are coupled through numerous rotatable axes. The mere fact that *Erickson* discloses the use of a lever mechanism does not also insinuate that this feature can be integrated into the structure described by *Byers*. In particular, Applicant respectfully submits that if one of ordinary skill could somehow integrate the lever mechanism of *Erickson* into the *Byers* structure, the modification of *Byers* would be so severe that the resulting device of *Byers* would be unsatisfactory for its intended purpose. For at least these reasons, a *prima facie* case of obviousness has not been established.

The Office is reminded that the Office has the initial burden of establishing a **factual basis** to support the legal conclusion of obviousness. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). For rejections under 35 U.S.C. § 103(a) based upon a combination of prior art elements, in KSR Int'l v. Teleflex Inc., 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007), the Supreme Court stated that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some **articulated reasoning with**

some rational underpinning to support the legal conclusion of obviousness." In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (emphasis added). Based on the foregoing discussions, withdrawal of this rejection is respectfully requested.

Conclusion

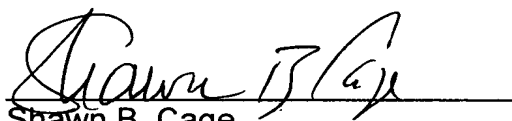
Based on the foregoing amendments and remarks, Applicant respectfully submits that claims 1-5, 7-13, and 15-22 are allowable, and this application is in condition for allowance. In the event any unresolved issues remain, the Office is invited to contact Applicant's representative identified below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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By:


Shawn B. Cage
Registration No. 51,522

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620